

REMARKS**Claim Disposition**

Claims 1 -32 are pending in the application. Claims 21 - 31 have been allowed. Claim 32 had not been addressed, but previously was allowed, and is presumed to be allowed. Claims 2, 4 - 6, 8 - 18, and 20 have been objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1, 3, 7, and 20 have been rejected. Claims 33 and 34 are newly added. Support for the amendments may readily be found in the specification and Figure 3. No new matter is added.

Claim Rejections -35 USC § 102

Claims 1, 3, 7, and 19 stand rejected under 35 U.S.C. 102(b) as being anticipated by Flavell, U.S. Patent No. 3,938,890, hereinafter referred to as Flavell. Applicants respectfully traverse. The Examiner states:

“With respect to claim 1, Flavell discloses a torque sensor for determining the torque acting upon a shaft, the torque sensor comprising: radiation source 26 emitting radiation of at least one wavelength; at least one sensor 28,30 sensing the emitted radiation generating thereby at least one intensity signal indicative of the intensity of the emitted radiation; at least one signal conditioner 14,16 receptive of the emitted radiation and positioned on a shaft 12 between the radiation source 26 and the at least one sensor 28,30 thereby conditioning the emitted radiation; and a circuit ({Fig. 6}) receptive of the at least one intensity signal determining thereby the torque acting upon the shaft 12 and compensating for the attenuation of the emitted radiation (col. 3 lines 64-68, col. 4 lines 1-51 {Figs. 1 and 6}).”

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"With respect to claim 3, Flavell discloses the torque sensor as set forth in claim 1 wherein the at least one signal conditioner 14,16 comprises a plurality of polarizers having polarization axes oriented at a prescribed angle with respect to one another (col. 3 lines 54-60)."

"With respect to claim 7, Flavell discloses the torque sensor as set forth in claim 1 wherein the at least one sensor 28,30 comprises a photodiode (col. 4 lines 53-54 {Fig. 7})."

"With respect to claim 19, Flavell discloses the torque sensor as set forth in claim 1 wherein the circuit ({Fig. 6}) is receptive of the at least one intensity signal thereby determining the torque acting upon the shaft 12 (col. 4 lines 7-40)."

Applicants respectfully contend that Flavell does not teach or disclose each element of the invention. To anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. Lewmar Marine Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements "arranged as in the claim." Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

With respect to Claim 1, Applicants respectfully contend that Flavell does not teach or disclose each element of the invention "arranged as in the claim". Specifically, Flavell does not teach or disclose, "a circuit receptive of the at least one intensity signal determining thereby the torque acting upon the shaft and compensating for the attenuation of the emitted radiation". To support the rejection the Examiner relies on Col. 3 lines 64 - 68 and Col 4, lines 1 - 51 as well as Figures 1 and 6. Applicants respectfully contend that

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there is no teaching of "compensating for the attenuation of the emitted radiation" taught in Flavell at the cited references. In particular, Flavell merely teaches of bridge circuit with where the voltage divider "point 38 is made slightly adjustable...to permit compensation for small **differential variations** in light intensity or sensor sensitivity at null". More particularly, Flavell can only compensate for **differential** variations of the light intensities detected by the two sensors. The claimed invention is not so limited, and compensates for the **intensity variations of the emitted radiation**, particularly in the signal conditioner. The compensation disclosed in Flavell cannot compensate for the attenuation of the emitted radiation as it can only make differential compensations. Therefore, because Flavell does not disclose or teach an element of the invention it cannot anticipate the Applicant's claims. Thus, Claim 1 is allowable, the rejection is improper, and it should be withdrawn.

In addition, Claims 3, 7, and 19 include the same limitations as Claim 1 an allowable claim and therefore, are also allowable, are improperly rejected. Thus, the rejections of Claims 3, 7, and 19 should be withdrawn. Moreover, Claims 3, 7, and 19 are dependent from Claim 1, an allowable claim, and therefore Claims 3, 7, and 19 must also be allowable. Thus, Claims 3, 7, and 19 are allowable, the rejections are improper, and they should be withdrawn.

With respect to newly added claims Claim 33 and 34, Applicants respectfully contend that Flavell does not teach or disclose each element of the invention "arranged as in the claim". Specifically, Flavell does not teach or disclose, "at least one other sensor disposed between a **first polarizer of said plurality of polarizers and a second polarizer of said plurality of polarizers**, said other sensor sensing the emitted radiation and generating thereby at least one other intensity signal indicative of the intensity of the emitted radiation". Therefore, because Flavell does not disclose or teach an element of the invention it cannot anticipate the Applicants' claims. Thus,

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Claim 33 is allowable. Claim 34 includes the same limitations as Claim 33 an allowable claim and therefore, is also allowable. Moreover, Claims 34 is dependent from Claim 3 and ultimately Claim 1, each, allowable claims, and therefore Claim 34 must also be allowable. Thus, Claims 34 is allowable.

The arguments presented herein are made for the purposes of better defining the invention, rather than to overcome the rejections for patentability. The claims have not been amended to overcome the prior art and therefore, no presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which the Applicants are entitled has been surrendered. Allowance of the claims is respectfully requested in view of the above remarks. Moreover, no amendments as presented alter the scope of the claimed invention and therefore cannot necessitate a new grounds rejection.

It is believed that the foregoing remarks are fully responsive to the Office Action and that the claims herein should be allowable to the Applicants. Accordingly, reconsideration and withdrawal of the rejections are requested.

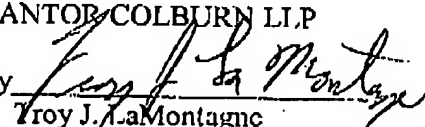
In the event the Examiner has any queries regarding the instantly submitted response, the undersigned respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention.

If there are additional charges with respect to this matter or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully Submitted,

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